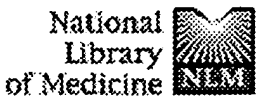
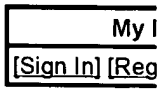
L13	11	"5994306"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:39
L14	4	"6043220"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:40
L15	12	"6159936"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:40
L16	4	"6307016"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:41
L17	9	"6335318"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:41
L18	5	"6514727"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:42
L19	2	"6653442"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:44
L20	1	(514/2,12,13,14.ccls. OR 435/69.1,69.2,69.3.ccls. OR 424/184.1, 185.1.ccls.) AND theta$defensin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:46
L21	9	(514/2,12,13,14.ccls. OR 435/69.1,69.2,69.3.ccls. OR 424/184.1, 185.1.ccls.) AND theta ADJ defensin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:49
L22	12	"060102"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 10:22
L23	0	WO-0068265-$.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 10:22
L24	1	WO-200068265-$.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 10:33

L25	3	maury-w$.in. AND defensin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 10:55
L26	2	"6713078"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 10:55

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	34	selsted-michael$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:04
L2	60	tang-yi$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:04
L3	12	ouellette-andre$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:05
L4	189	yuan-jun$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:06
L5	7	(selsted-m$.in. OR tang-y$.in. OR yuan-j$.in. OR ouellette-a$.in.) AND theta ADJ defensin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:33
L6	36	"5464823"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:34
L7	5	"5633229"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:34
L8	20	"5693486"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:35
L9	16	"5708145"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:36
L10	4	"5804553"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:36
L11	2	"5889152"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:37
L12	7	"5916872"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/07/01 09:38



About Entrez

Text Version

Entrez PubMed
Overview
Help | FAQ
Tutorial
New/Noteworthy
E-Utilities

PubMed Services
Journals Database
MeSH Database
Single Citation Matcher
Batch Citation Matcher
Clinical Queries
Special Queries
LinkOut
My NCBI (Cubby)

Related Resources
Order Documents
NLM Catalog
NLM Gateway
TOXNET
Consumer Health
Clinical Alerts
ClinicalTrials.gov
PubMed Central

- Search History will be lost after eight hours of inactivity.
- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.
- Click on query # to add to strategy

Search	Most Recent Queries	Time	Result
#15	**Related Articles** for **PubMed** (Select **15544531**)	11:58:20	122
#13	**Related Articles** for **PubMed** (Select **10673369**)	11:40:18	346
#11	Search **yeast AND (#1 OR #5 OR #8)**	11:40:12	1
#8	Search **"rhesus theta defensin-3"[Substance Name] OR "rhesus theta defensin-2"[Substance Name] OR "theta-defensin"[Substance Name]**	11:27:08	10
#5	Search **"theta-defensin"[Substance Name]**	11:20:34	9
#1	Search **theta defensin**	11:19:35	17

Clear History

Connecting via Winsock to STN

(2) priority : May 10, 1999

Welcome to STN International! Enter x:x

LOGINID:ssspta1653aud

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	4	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	5	MAR 02	GBFULL: New full-text patent database on STN
NEWS	6	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	7	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	8	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	9	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	10	MAR 22	PATDPASPC - New patent database available
NEWS	11	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	12	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	13	APR 04	EMBASE - Database reloaded and enhanced
NEWS	14	APR 18	New CAS Information Use Policies available online
NEWS	15	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	16	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAplus
NEWS	17	MAY 23	GBFULL enhanced with patent drawing images
NEWS	18	MAY 23	REGISTRY has been enhanced with source information from CHEMCATS
NEWS	19	JUN 06	STN Patent Forums to be held in June 2005
NEWS	20	JUN 06	The Analysis Edition of STN Express with Discover! (Version 8.0 for Windows) now available
NEWS	21	JUN 13	RUSSIAPAT: New full-text patent database on STN
NEWS	22	JUN 13	FRFULL enhanced with patent drawing images
NEWS	23	JUN 20	MEDICONF to be removed from STN
NEWS	24	JUN 27	MARPAT displays enhanced with expanded G-group definitions and text labels
NEWS	25	JUL 01	MEDICONF removed from STN

NEWS EXPRESS	JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:03:42 ON 01 JUL 2005

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.42	0.42

FILE 'REGISTRY' ENTERED AT 10:04:34 ON 01 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 30 JUN 2005 HIGHEST RN 853560-59-5
DICTIONARY FILE UPDATES: 30 JUN 2005 HIGHEST RN 853560-59-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

****
* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
****

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> s gfcrcictrgfcrcictr | gvcrclcrrgvcrclcrr/sqsp
L1 7 GFCRCICTRGFCRCICTR|GVCRCLCRRGVCRCLCRR/SQSP

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	28.36	28.78

FILE 'CAPLUS' ENTERED AT 10:05:34 ON 01 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 1 Jul 2005 VOL 143 ISS 2
FILE LAST UPDATED: 30 Jun 2005 (20050630/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l1
L2 5 L1

=> d l2 ibib ti abs it 1-5

L2 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:60123 CAPLUS
DOCUMENT NUMBER: 140:122752
TITLE: Antimicrobial theta defensins, analogs thereof, and methods of use
INVENTOR(S): Selsted, Michael E.; Tran, Dat Q.
PATENT ASSIGNEE(S): Regents of the University of California, USA
SOURCE: U.S. Pat. Appl. Publ., 46 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004014669	A1	20040122	US 2003-427715		20030430
PRIORITY APPLN. INFO.:			US 2002-377071P	P	20020430

OTHER SOURCE(S): MARPAT 140:122752
TI Antimicrobial theta defensins, analogs thereof, and methods of use
AB The invention provides theta defensin analogs having antimicrobial activity. The invention also provides a method of reducing or inhibiting growth or survival of a microorganism in an environment capable of sustaining the growth or survival of the microorganism, comprising administering an effective amount of a theta defensin analog to the environment, thereby reducing or inhibiting the growth or survival of the microorganism. The structure and microbicidal activities and relationships of theta defensins and protegrin-1 were evaluated by comparing the microbicidal activities of 20 analogs against Escherichia coli, Candida albicans, and Cryptococcus neoformans and by determining the relative bactericidal activities in assays containing ionic and serum additives.
IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CCL17 (C-C motif ligand 17), theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)
IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(ENA-78, theta defensin reduction of LPS-induced stimulation of production of;
antimicrobial theta defensins, analogs thereof, and uses)
IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(GRO, theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)
IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(MDC (macrophage-derived chemokine), theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)
IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(SDF-1 (stromal-derived factor-1), theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)
IT Antibacterial agents
Antimicrobial agents
Drug delivery systems
Fungicides
Hemolysis
Human
Mammalia
Protein sequences
(antimicrobial theta defensins, analogs thereof, and uses)
IT Antibodies and Immunoglobulins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(antimicrobial theta defensins, analogs thereof, and uses)
IT Structure-activity relationship
(antimicrobial, of theta defensins and protegrins; antimicrobial theta defensins, analogs thereof, and uses)
IT Ovalbumin
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugates, with acyclic RTD-2 for antibody production; antimicrobial theta defensins, analogs thereof, and uses)
IT Structure-activity relationship
(hemolytic, of theta defensins and protegrins; antimicrobial theta defensins, analogs thereof, and uses)
IT Food
Solutions
(inhibiting microorganism growth in; antimicrobial theta defensins, analogs thereof, and uses)
IT Surface
(inhibiting microorganism growth on; antimicrobial theta defensins, analogs thereof, and uses)
IT Candida albicans
Cryptococcus neoformans
Escherichia coli
Staphylococcus aureus
(inhibition of; antimicrobial theta defensins, analogs thereof, and uses)
IT Drug delivery systems
(injections; antimicrobial theta defensins, analogs thereof, and uses)
IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(macrophage inflammatory protein 1, MIP-1-δ, theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)
IT Structure-activity relationship
(membrane permeability-affecting, of theta defensins and protegrins;

antimicrobial theta defensins, analogs thereof, and uses)

IT Permeability
(membrane permeabilization by peptides against Escherichia coli; antimicrobial theta defensins, analogs thereof, and uses)

IT Blood serum
Ionic strength
(microbicidal activity response to; antimicrobial theta defensins, analogs thereof, and uses)

IT Salts, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(microbicidal activity response to; antimicrobial theta defensins, analogs thereof, and uses)

IT Drug delivery systems
(oral; antimicrobial theta defensins, analogs thereof, and uses)

IT Contact lenses
(solns., inhibiting microorganism growth in; antimicrobial theta defensins, analogs thereof, and uses)

IT Drug delivery systems
(solns., ophthalmic, inhibiting microorganism growth in; antimicrobial theta defensins, analogs thereof, and uses)

IT Interleukin 10
Interleukin 1β
Interleukin 2
Interleukin 5
Interleukin 6
Interleukin 7
Monocyte chemoattractant protein-2
RANTES (chemokine)
Stem cell factor
Tumor necrosis factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT Macaca mulatta
(theta defensins purification from peripheral blood leukocytes of; antimicrobial theta defensins, analogs thereof, and uses)

IT Leukocyte
(theta defensins purification from peripheral blood; antimicrobial theta defensins, analogs thereof, and uses)

IT Anti-inflammatory agents
(theta defensins; antimicrobial theta defensins, analogs thereof, and uses)

IT Drug delivery systems
(topical; antimicrobial theta defensins, analogs thereof, and uses)

IT Transforming growth factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(β1-, theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT Interferons
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(γ, theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT 168831-75-2P, Protegrin 1 168831-77-4P 202818-92-6P 251442-64-5P,
θ-Defensin 1 (Macaca mulatta) **306966-04-1P**
374088-87-6P 648858-21-3P **648858-22-4P**
648858-23-5P **648858-24-6P** 648858-25-7P 648858-26-8P
648858-27-9P 648858-28-0P 648858-29-1P 648858-30-4P 648858-31-5P
648858-32-6P 648858-33-7P 648858-34-8P 648858-35-9P 648858-36-0P
648858-37-1P 648858-38-2P 648858-39-3P 648858-40-6P 648858-41-7P
648858-42-8P 648858-43-9P 648858-44-0P 648858-45-1P 648858-46-2P
648858-47-3P
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL

(Biological study); PREP (Preparation); USES (Uses)
(antimicrobial theta defensins, analogs thereof, and uses)

IT 251442-64-5D, Theta defensin, analogs
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antimicrobial theta defensins, analogs thereof, and uses)

IT 339058-99-0P
RL: BUU (Biological use, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(conjugation to ovalbumin for antibody production; antimicrobial theta defensins, analogs thereof, and uses)

IT 7647-14-5, Sodium chloride, biological studies 7786-30-3, Magnesium chloride, biological studies 10043-52-4, Calcium chloride, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(microbicidal activity response to; antimicrobial theta defensins, analogs thereof, and uses)

IT 81627-83-0, M-CSF 83869-56-1, GM-CSF 143011-72-7, G-CSF
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT 650642-88-9 650642-89-0 650642-90-3 650642-91-4 650642-92-5 650642-93-6
RL: PRP (Properties)
(unclaimed sequence; antimicrobial theta defensins, analogs thereof, and methods of use)

L2 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:594692 CAPLUS
DOCUMENT NUMBER: 137:153832
TITLE: Novel antiviral activities of primate theta defensins and mammalian cathelicidins
INVENTOR(S): Maury, Wendy; Stapleton, Jack; Stinski, Mark; Roller, Richard; McCray, Paul B.; Tack, Brian
PATENT ASSIGNEE(S): University of Iowa Research Foundation, USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002060468	A2	20020808	WO 2002-US2435		20020129
WO 2002060468	A3	20030123			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
US 2003022829	A1	20030130	US 2002-60102		20020129
US 2004086535	A1	20040506	US 2003-721839		20031125
PRIORITY APPLN. INFO.:			US 2001-265270P	P	20010130
			US 2001-309368P	P	20010801
			US 2002-60102	A3	20020129

TI Novel antiviral activities of primate theta defensins and mammalian

cathelicidins

AB The present invention relates to the use of anti-viral peptides in the inhibition and treatment of viral infections, in particular infections caused by enveloped viruses. These anti-viral peptides, some natural and others artificial, adopt either amphiphilic alpha-helical or a theta structure where the homodimeric or heterodimer peptides are joined by both cysteine bonds and circularization of the peptides. These agents may be used alone or in combination with more traditional anti-viral pharmaceuticals.

IT Human coronavirus
(229-E and OC43; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Animal virus
(Lasa; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Human
Monkey
Mus
Ovis aries
(cathelicidin of; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Contraceptives
(condoms; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Contraceptives
(diaphragms; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Virus
(enveloped; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Animal virus
(hemagglutinating virus of swine; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Drug delivery systems
(inhalants; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Drug delivery systems
(injections; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Sperm
(motility, inhibitors of; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT African swine fever virus
Antiviral agents
Avian infectious bronchitis virus
Avian leukemia virus
Avian sarcoma virus
Blood
Blood plasma
Border disease virus 1
Bos taurus
Bovine diarrhea virus
Bovine herpesvirus 1
Bovine lentivirus
Bovine leukemia virus
Chikungunya virus
Classical swine fever virus
Contraceptives
Cytomegalovirus
Dengue virus
Drug delivery systems
Ebola virus
Feline immunodeficiency virus

Feline infectious peritonitis virus
Feline leukemia virus
Felis catus
Gallid herpesvirus
Gene therapy
Genetic vectors
Hantavirus
Hepatitis A virus
Hepatitis B virus
Hepatitis C virus
Hepatitis GB virus C/G
Herpes virus B
Human T-lymphotropic virus 1
Human T-lymphotropic virus 2
Human herpesvirus 1
Human herpesvirus 2
Human herpesvirus 3
Human herpesvirus 4
Human herpesvirus 6
Human herpesvirus 8
Human immunodeficiency virus
Immunosuppression
Influenza A virus
Influenza B virus
Influenza C virus
Japanese encephalitis virus
Junin virus
Lymphocytic choriomeningitis virus
Machupo virus
Marburg virus
Mayaro virus
Measles virus
Molecular cloning
Mumps virus
Mumps virus
O'nyong-nyong virus
Platelet (blood)
Poultry
Protein sequences
Pseudorabies virus
Rabies virus
Respiratory syncytial virus
Reticuloendotheliosis virus
Rift Valley fever virus
Ross River virus
Rubella virus
Rubella virus
St. Louis encephalitis virus
Sus scrofa domestica
Swinepox virus
Syringes
Vaccinia virus
Variola virus
Vesicular stomatitis virus
Viral vectors
Visna-Maedi virus
West Nile virus
Yellow fever virus
α-Helix
(novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Promoter (genetic element)
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or

chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process)
(novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Nucleoside analogs
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Peptides, biological studies
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Drug delivery systems
(oral; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Blood cell
(packed; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Mucous membrane
Wound
(peptide delivery to; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Animal virus
(sandfly fever; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Contraceptives
(spermicidal; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Medical goods
(sterile i.v. bags; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Cell membrane
Endoplasmic reticulum
Golgi apparatus
(targeting of; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Drug delivery systems
(topical; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Medical goods
(tubes; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Animal virus
(turkey bluecomb; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Drug delivery systems
(vaginal; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Adenoviridae
(vectors; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT Infection
(viral; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT 172485-26-6P 326855-45-2P 326855-46-3P 326855-47-4P 326855-49-6P
326855-51-0P 386702-96-1P 445471-94-3P 445471-99-8P 445472-14-0P
445472-17-3P 445472-26-4P 445472-28-6P 445472-31-1P 445472-34-4P
445504-02-9P 445504-03-0P 445504-04-1P 445504-05-2P 445504-06-3P
RL: PAC (Pharmacological activity); PNU (Preparation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT 170006-50-5, Cathelicidin 374088-86-5, θ-Defensin
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT 37205-61-1, Proteinase inhibitor
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT 307334-73-2 **307334-75-4 307334-76-5** 384340-75-4
384340-80-1 445472-40-2 445472-47-9 445472-49-1
RL: PRP (Properties)
(unclaimed sequence; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

IT 9012-90-2, Dna polymerase 52350-85-3, Integrase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(viral, inhibitors; novel antiviral activities of primate theta defensins and mammalian cathelicidins)

L2 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:102701 CAPLUS
DOCUMENT NUMBER: 136:400525
TITLE: Homodimeric θ-defensins from Rhesus macaque leukocytes. Isolation, synthesis, antimicrobial activities, and bacterial binding properties of the cyclic peptides
AUTHOR(S): Tran, Dat; Tran, Patti A.; Tang, Yi-Quan; Yuan, Jun; Cole, Tim; Selsted, Michael E.
CORPORATE SOURCE: Departments of Pathology and Microbiology & Molecular Genetics, University of California, Irvine, CA, 92697, USA
SOURCE: Journal of Biological Chemistry (2002), 277(5), 3079-3084
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Homodimeric θ-defensins from Rhesus macaque leukocytes. Isolation, synthesis, antimicrobial activities, and bacterial binding properties of the cyclic peptides

AB Rhesus θ-defensin 1 (RTD-1) is a unique tridisulfide, cyclic antimicrobial peptide formed by the ligation of two 9-residue sequences derived from heterodimeric splicing of similar 76-amino acid, α-defensin-related precursors, termed RTD1a and RTD1b. The structures of RTD-2 and RTD-3 were predicted to exist if homodimeric splicing of the RTD1a and RTD1b occurs in vivo. Western blotting disclosed the presence of putative θ-defensins, distinct from RTD-1, in leukocyte exts. Two new θ-defensins, RTD-2 and RTD-3, were purified by reverse-phase high performance liquid chromatog. and characterized by amino acid anal., matrix-assisted laser desorption/ionization time-of-flight mass spectroscopy, and comparison to the synthetic stds. RTD-2 and RTD-3 are the predicted homodimeric splicing products of RTD1b and RTD1a, resp. The cellular abundance of RTD-1, -2, and -3 were 29:1:2, indicating that there is a preference for the heterodimeric ligation that generates RTD-1. RTD-1, -2, and -3 had similar antimicrobial activities against Staphylococcus aureus, Candida albicans, and Cryptococcus neoformans, whereas the activity of RTD-2 against Escherichia coli was 2-3-fold less than those of RTD-1 and RTD-3. Equal amts. of each θ-defensin bound to E. coli cells, indicating that the differences in antibacterial activities are the result of

post-binding processes.

IT Candida albicans
Cryptococcus neoformans
Escherichia coli
Leukocyte
Macaca mulatta
Staphylococcus aureus
(isolation, synthesis, and antimicrobial activities of homodimeric θ-defensins of Rhesus macaque)

IT **306966-04-1P 374088-87-6P**
RL: BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(isolation, synthesis, and antimicrobial activities of homodimeric θ-defensins of Rhesus macaque)

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:688259 CAPLUS
DOCUMENT NUMBER: 135:370575
TITLE: Circular minidefensins and posttranslational generation of molecular diversity
AUTHOR(S): Leonova, Larisa; Kokryakov, Vladimir N.; Aleshina, Galina; Hong, Teresa; Nguyen, Tung; Zhao, Chengquan; Waring, Alan J.; Lehrer, Robert I.
CORPORATE SOURCE: Department of Medicine, UCLA School of Medicine, Los Angeles, CA, USA
SOURCE: Journal of Leukocyte Biology (2001), 70(3), 461-464
CODEN: JLBIE7; ISSN: 0741-5400
PUBLISHER: Federation of American Societies for Experimental Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Circular minidefensins and posttranslational generation of molecular diversity

AB The authors purified two new minidefensins (RTD-2 and RTD-3) from the bone marrow of rhesus monkeys. Both were circular octadecapeptides that contained three intramol. disulfide bonds and were homologous to RTD-1, a circular (θ) defensin described previously. However, whereas the 18 residues of RTD-1 represent spliced nonapeptide fragments derived from two different demidefensin precursors, RTD-2 and -3 comprise tandem nonapeptide repeats derived from only one of the RTD-1 precursors. Thus, circular minidefensins are products of a novel post-translational system that generates effector mol. diversity without commensurate genome expansion. A system wherein two demidefensin genes can produce three circular minidefensins might allow n such genes to produce (n/2)(n+1) peptides.

IT Macaca mulatta
(cloning and characterization of circular defensins of)

IT Bone marrow
(demidefensin gene expression in rhesus monkey)

IT Protein sequences
cDNA sequences
(for demidefensins and θ-defensins of rhesus monkey)

IT Escherichia coli
(rhesus monkey circular defensins killing of)

IT 372996-91-3 372996-92-4
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(amino acid sequence; cloning and characterization of circular defensins of rhesus monkey)

IT 373385-50-3 373385-56-9 373385-60-5
RL: PRP (Properties)
(amino acid sequence; cloning and characterization of circular defensins of rhesus monkey)
IT 251470-28-7 **306966-04-1**, θ-Defensin RTD 3 374088-86-5, θ-Defensin **374088-87-6**, θ-Defensin RTD 2
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(cloning and characterization of circular defensins of rhesus monkey)
IT 248228-20-8, GenBank AF184156 248228-21-9, GenBank AF184157
292583-48-3, GenBank AF184158
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(nucleotide sequence; cloning and characterization of circular defensins of rhesus monkey)
IT 251442-64-5, θ-Defensin RTD 1
RL: PRP (Properties)
(sequence homol. to θ defensins 2 and 3 of rhesus monkey)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:814517 CAPLUS
DOCUMENT NUMBER: 133:366399
TITLE: Antimicrobial theta-defensins and methods of using same
INVENTOR(S): Selsted, Michael E.; Tang, Yi-quan; Yuan, Jun; Ouellette, Andre J.
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: PCT Int. Appl., 110 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000068265	A1	20001116	WO 2000-US12842	20000510
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6335318	B1	20020101	US 1999-309487	19990510
CA 2372821	AA	20001116	CA 2000-2372821	20000510
EP 1187850	A1	20020320	EP 2000-930577	20000510
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6514727	B1	20030204	US 2001-967808	20010926
US 2003162718	A1	20030828	US 2002-313994	20021205
US 6890537	B2	20050510		

PRIORITY APPLN. INFO.:	US 1999-309487	A2	19990510
	WO 2000-US12842	W	20000510
	US 2001-967808	A1	20010926

OTHER SOURCE(S): MARPAT 133:366399
TI Antimicrobial theta-defensins and methods of using same

priority document

AB The present invention relates to an isolated cyclic peptide, θ-defensin, having antimicrobial activity, and to θ-defensin analogs. A θ-defensin can have the amino acid sequence Xaa1-Xaa2-Xaa3-Xaa4-Xaa5-Xaa1-Xaa6-Xaa4-Xaa4-Xaa1-Xaa1-Xaa6-Xaa4-Xaa5-Xaa1-Xaa3- aa7-Xaa8, wherein Xaa1 to Xaa8 are defined; wherein Xaa1 can be linked through a peptide bond to Xaa8; and wherein crosslinks can be formed between Xaa3 and Xaa3, between Xaa5 and Xaa5, and between Xaa7 and Xaa7. For example, the invention provides a θ-defensin having the amino acid sequence Gly-Phe-Cys-Arg-Cys-Leu-Cys-Arg-Arg-Gly-Val-Cys-Arg-Cys-Ile-Cys-Thr-Arg (SEQ ID NO:1), wherein the Gly at position 1 (Gly-1) is linked through a peptide bond to Arg-18, and wherein disulfide bonds are present between Cys-3 and Cys-16, between Cys-5 and Cys-14, and between Cys-7 and Cys-12. The invention also provides nucleic acids encoding θ-defensins and antibodies that specifically bind a θ-defensin. In addition, the invention relates to methods of using θ-defensin to reduce or inhibit microbial growth or survival.

IT Acanthamoeba
Antibacterial agents
Antimicrobial agents
Antiviral agents
Candida
Candida albicans
Cryptococcus (fungus)
Cryptococcus neoformans
Escherichia
Escherichia coli
Fungicides
Genetic vectors
Giardia
Gram-positive bacteria (Firmicutes)
Human immunodeficiency virus 1
Listeria
Listeria monocytogenes
Macaca mulatta
Protein sequences
Protozoacides
Salmonella
Salmonella typhimurium
Staphylococcus
Staphylococcus aureus
Yeast
cDNA sequences
(antimicrobial theta-defensins and methods of using same)

IT Drug delivery systems
(carriers; antimicrobial theta-defensins and methods of using same)

IT Drug delivery systems
(injections; antimicrobial theta-defensins and methods of using same)

IT Drug delivery systems
(liposomes; antimicrobial theta-defensins and methods of using same)

IT Antibodies
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(monoclonal; antimicrobial theta-defensins and methods of using same)

IT Drug delivery systems
(oral; antimicrobial theta-defensins and methods of using same)

IT Contact lenses
(solns. for; antimicrobial theta-defensins and methods of using same)

IT Drug delivery systems
(solns., ophthalmic; antimicrobial theta-defensins and methods of using same)

IT Drug delivery systems
(topical; antimicrobial theta-defensins and methods of using same)

IT 245558-28-5, GenBank AF191103 307361-70-2

RL: PRP (Properties)
(Unclaimed; antimicrobial theta-defensins and methods of using same)

IT 251442-64-5P, θ-Defensin 1 (Macaca mulatta) 306965-99-1P
306966-02-9P **306966-04-1P**
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; antimicrobial theta-defensins and methods of using same)

IT 2592-95-2, N-Hydroxybenzotriazole
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclizing agent; antimicrobial theta-defensins and methods of using same)

IT 245558-25-2 245558-26-3
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(nucleotide sequence; antimicrobial theta-defensins and methods of using same)

IT 9031-96-3, Exopeptidase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(resistance to; antimicrobial theta-defensins and methods of using same)

IT 307334-73-2 307334-74-3 **307334-75-4 307334-76-5**
307361-67-7 307361-68-8 307361-69-9 307361-72-4 307361-73-5
307361-74-6 307361-75-7
RL: PRP (Properties)
(unclaimed sequence; antimicrobial theta-defensins and methods of using same)

IT 103220-14-0, Defensin
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(θ-; antimicrobial theta-defensins and methods of using same)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	15.75	44.53

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.65	-3.65

FILE 'REGISTRY' ENTERED AT 10:06:41 ON 01 JUL 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 30 JUN 2005 HIGHEST RN 853560-59-5
DICTIONARY FILE UPDATES: 30 JUN 2005 HIGHEST RN 853560-59-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

```
**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> s (306966-04-1/bi OR 374088-87-6/bi OR 307334-75-4/bi OR 307334-76-5/bi OR
648858-22-4/bi OR 648858-23-5/bi OR 648858-24-6/bi)
             1 306966-04-1/BI
               (306966-04-1/RN)
             1 374088-87-6/BI
               (374088-87-6/RN)
             1 307334-75-4/BI
               (307334-75-4/RN)
             1 307334-76-5/BI
               (307334-76-5/RN)
             1 648858-22-4/BI
               (648858-22-4/RN)
             1 648858-23-5/BI
               (648858-23-5/RN)
             1 648858-24-6/BI
               (648858-24-6/RN)
L3           7 (306966-04-1/BI OR 374088-87-6/BI OR 307334-75-4/BI OR 307334-76
               -5/BI OR 648858-22-4/BI OR 648858-23-5/BI OR 648858-24-6/BI)

=> S L1 AND L3
L4           7 L1 AND L3

=> d l4 rn cn

L4   ANSWER 1 OF 7  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   648858-24-6  REGISTRY
CN   L-Argininamide, glycyl-L-valyl-L-cysteinyl-L-arginyl-L-cysteinyl-L-leucyl-
     L-cysteinyl-L-arginyl-L-arginylglycyl-L-valyl-L-cysteinyl-L-arginyl-L-
     cysteinyl-L-leucyl-L-cysteinyl-L-arginyl-, cyclic
     (3→16),(5→14),(7→12)-tris(disulfide) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   7: PN: US20040014669 TABLE: 1 claimed protein


=> d l4 all

L4   ANSWER 1 OF 7  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   648858-24-6  REGISTRY
ED   Entered STN:  11 Feb 2004
CN   L-Argininamide, glycyl-L-valyl-L-cysteinyl-L-arginyl-L-cysteinyl-L-leucyl-
     L-cysteinyl-L-arginyl-L-arginylglycyl-L-valyl-L-cysteinyl-L-arginyl-L-
     cysteinyl-L-leucyl-L-cysteinyl-L-arginyl-, cyclic
     (3→16),(5→14),(7→12)-tris(disulfide) (9CI)  (CA INDEX
```

NAME)
OTHER NAMES:
CN 7: PN: US20040014669 TABLE: 1 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 18
NTE modified

type	------ location ------		description
terminal mod.	Arg-18	-	C-terminal amide
bridge	Cys-3	- Cys-16	disulfide bridge
bridge	Cys-5	- Cys-14	disulfide bridge
bridge	Cys-7	- Cys-12	disulfide bridge

PATENT ANNOTATIONS (PNTE):

Sequence Source	Patent Reference
Not Given	US2004014669 claimed TABLE 1

```
SEQ      1 GVCRCLCRRG VCRCLCRR
           ========== ========
HITS AT:   1-18

SEQ3     1 Gly-Val-Cys-Arg-Cys-Leu-Cys-Arg-Arg-Gly-
           === === === === === === === === === ===
        11 Val-Cys-Arg-Cys-Leu-Cys-Arg-Arg
           === === === === === === === ===
HITS AT:   1-18
```

RELATED SEQUENCES AVAILABLE WITH SEQLINK

MF C80 H145 N37 O18 S6
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

Ring System Data

Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C13N5S2- C14N4S4- C14N4S4	NC2NC2NC2NC2N C2S2C3- NC2NC2S2C3NC2 NC2S2C3- NC2NC2S2C3NC2 NC2S2C3	20-22-22	C33N13S6	86998.1.1	1

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 140:122752 CA
TI Antimicrobial theta defensins, analogs thereof, and methods of use

IN Selsted, Michael E.; Tran, Dat Q.
PA Regents of the University of California, USA
SO U.S. Pat. Appl. Publ., 46 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K038-10
ICS C07K007-08
NCL 514014000
CC 1-5 (Pharmacology)
Section cross-reference(s): 10, 17, 34, 62, 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2004014669	A1	20040122	US 2003-427715	20030430
PRAI US 2002-377071P		20020430		

AB The invention provides theta defensin analogs having antimicrobial activity. The invention also provides a method of reducing or inhibiting growth or survival of a microorganism in an environment capable of sustaining the growth or survival of the microorganism, comprising administering an effective amount of a theta defensin analog to the environment, thereby reducing or inhibiting the growth or survival of the microorganism. The structure and microbicidal activities and relationships of theta defensins and protegrin-1 were evaluated by comparing the microbicidal activities of 20 analogs against Escherichia coli, Candida albicans, and Cryptococcus neoformans and by determining the relative bactericidal activities in assays containing ionic and serum additives.

ST antimicrobial theta defensin analog

IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CCL17 (C-C motif ligand 17), theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(ENA-78, theta defensin reduction of LPS-induced stimulation of production of;
antimicrobial theta defensins, analogs thereof, and uses)

IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(GRO, theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(MDC (macrophage-derived chemokine), theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(SDF-1 (stromal-derived factor-1), theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT Antibacterial agents
Antimicrobial agents
Drug delivery systems
Fungicides
Hemolysis
Human
Mammalia
Protein sequences
(antimicrobial theta defensins, analogs thereof, and uses)

IT Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(antimicrobial theta defensins, analogs thereof, and uses)

IT Structure-activity relationship
(antimicrobial, of theta defensins and protegrins; antimicrobial theta defensins, analogs thereof, and uses)

IT Ovalbumin
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(conjugates, with acyclic RTD-2 for antibody production; antimicrobial theta defensins, analogs thereof, and uses)

IT Structure-activity relationship
(hemolytic, of theta defensins and protegrins; antimicrobial theta defensins, analogs thereof, and uses)

IT Food
Solutions
(inhibiting microorganism growth in; antimicrobial theta defensins, analogs thereof, and uses)

IT Surface
(inhibiting microorganism growth on; antimicrobial theta defensins, analogs thereof, and uses)

IT Candida albicans
Cryptococcus neoformans
Escherichia coli
Staphylococcus aureus
(inhibition of; antimicrobial theta defensins, analogs thereof, and uses)

IT Drug delivery systems
(injections; antimicrobial theta defensins, analogs thereof, and uses)

IT Chemokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(macrophage inflammatory protein 1, MIP-1-δ, theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT Structure-activity relationship
(membrane permeability-affecting, of theta defensins and protegrins; antimicrobial theta defensins, analogs thereof, and uses)

IT Permeability
(membrane permeabilization by peptides against Escherichia coli; antimicrobial theta defensins, analogs thereof, and uses)

IT Blood serum
Ionic strength
(microbicidal activity response to; antimicrobial theta defensins, analogs thereof, and uses)

IT Salts, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(microbicidal activity response to; antimicrobial theta defensins, analogs thereof, and uses)

IT Drug delivery systems
(oral; antimicrobial theta defensins, analogs thereof, and uses)

IT Contact lenses
(solns., inhibiting microorganism growth in; antimicrobial theta defensins, analogs thereof, and uses)

IT Drug delivery systems
(solns., ophthalmic, inhibiting microorganism growth in; antimicrobial theta defensins, analogs thereof, and uses)

IT Interleukin 10
Interleukin 1β
Interleukin 2
Interleukin 5
Interleukin 6
Interleukin 7
Monocyte chemoattractant protein-2

RANTES (chemokine)
Stem cell factor
Tumor necrosis factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT Macaca mulatta
(theta defensins purification from peripheral blood leukocytes of; antimicrobial theta defensins, analogs thereof, and uses)

IT Leukocyte
(theta defensins purification from peripheral blood; antimicrobial theta defensins, analogs thereof, and uses)

IT Anti-inflammatory agents
(theta defensins; antimicrobial theta defensins, analogs thereof, and uses)

IT Drug delivery systems
(topical; antimicrobial theta defensins, analogs thereof, and uses)

IT Transforming growth factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(β1-, theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT Interferons
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(γ, theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT 168831-75-2P, Protegrin 1 168831-77-4P 202818-92-6P 251442-64-5P, θ-Defensin 1 (Macaca mulatta) 306966-04-1P 374088-87-6P
648858-21-3P 648858-22-4P 648858-23-5P 648858-24-6P 648858-25-7P
648858-26-8P 648858-27-9P 648858-28-0P 648858-29-1P 648858-30-4P
648858-31-5P 648858-32-6P 648858-33-7P 648858-34-8P 648858-35-9P
648858-36-0P 648858-37-1P 648858-38-2P 648858-39-3P 648858-40-6P
648858-41-7P 648858-42-8P 648858-43-9P 648858-44-0P 648858-45-1P
648858-46-2P 648858-47-3P
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antimicrobial theta defensins, analogs thereof, and uses)

IT 251442-64-5D, Theta defensin, analogs
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antimicrobial theta defensins, analogs thereof, and uses)

IT 339058-99-0P
RL: BUU (Biological use, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(conjugation to ovalbumin for antibody production; antimicrobial theta defensins, analogs thereof, and uses)

IT 7647-14-5, Sodium chloride, biological studies 7786-30-3, Magnesium chloride, biological studies 10043-52-4, Calcium chloride, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(microbicidal activity response to; antimicrobial theta defensins, analogs thereof, and uses)

IT 81627-83-0, M-CSF 83869-56-1, GM-CSF 143011-72-7, G-CSF
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(theta defensin reduction of LPS-induced stimulation of production of; antimicrobial theta defensins, analogs thereof, and uses)

IT 650642-88-9 650642-89-0 650642-90-3 650642-91-4 650642-92-5 650642-93-6
RL: PRP (Properties)
(unclaimed sequence; antimicrobial theta defensins, analogs thereof, and methods of use)

```
=> d l4 rn cn sql seq 2-7

L4   ANSWER 2 OF 7  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   648858-23-5  REGISTRY
CN   L-Arginine, glycyl-L-valyl-L-cysteinyl-L-arginyl-L-cysteinyl-L-leucyl-L-
     cysteinyl-L-arginyl-L-arginylglycyl-L-valyl-L-cysteinyl-L-arginyl-L-
     cysteinyl-L-leucyl-L-cysteinyl-L-arginyl-, cyclic
     (3→16),(5→14),(7→12)-tris(disulfide) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   6: PN: US20040014669 TABLE: 1 claimed protein
SQL  18

SEQ      1 GVCRCLCRRG VCRCLCRR
           ========== ========
HITS AT:   1-18

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

L4   ANSWER 3 OF 7  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   648858-22-4  REGISTRY
CN   L-Arginine, glycyl-L-phenylalanyl-L-cysteinyl-L-arginyl-L-cysteinyl-L-
     isoleucyl-L-cysteinyl-L-threonyl-L-arginylglycyl-L-phenylalanyl-L-
     cysteinyl-L-arginyl-L-cysteinyl-L-isoleucyl-L-cysteinyl-L-threonyl-,
     cyclic (3→16),(5→14),(7→12)-tris(disulfide) (9CI)
     (CA INDEX NAME)
OTHER NAMES:
CN   5: PN: US20040014669 TABLE: 1 claimed protein
SQL  18

SEQ      1 GFCRCICTRG FCRCICTR
           ========== ========
HITS AT:   1-18

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

L4   ANSWER 4 OF 7  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   374088-87-6  REGISTRY
CN   Cyclo(L-arginyl-L-arginylglycyl-L-valyl-L-cysteinyl-L-arginyl-L-cysteinyl-
     L-leucyl-L-cysteinyl-L-arginyl-L-arginylglycyl-L-valyl-L-cysteinyl-L-
     arginyl-L-cysteinyl-L-leucyl-L-cysteinyl), cyclic
     (5→18),(7→16),(9→14)-tris(disulfide) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   θ-Defensin RTD 2
CN   3: PN: US20040014669 TABLE: 1 claimed protein
SQL  18

SEQ      1 RRGVCRCLCR RGVCRCLC
           ========== ========
HITS AT:   1-11, 3-18

L4   ANSWER 5 OF 7  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   307334-76-5  REGISTRY
CN   L-Arginine, glycyl-L-valyl-L-cysteinyl-L-arginyl-L-cysteinyl-L-leucyl-L-
     cysteinyl-L-arginyl-L-arginylglycyl-L-valyl-L-cysteinyl-L-arginyl-L-
     cysteinyl-L-leucyl-L-cysteinyl-L-arginyl- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   12: PN: WO0068265 FIGURE: 16 unclaimed sequence
CN   29: PN: WO02060468 SEQID: 29 unclaimed sequence
SQL  18
```

```
SEQ      1 GVCRCLCRRG VCRCLCRR
           ========== ========
HITS AT:   1-18

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

L4   ANSWER 6 OF 7  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   307334-75-4  REGISTRY
CN   L-Arginine, glycyl-L-phenylalanyl-L-cysteinyl-L-arginyl-L-cysteinyl-L-
     isoleucyl-L-cysteinyl-L-threonyl-L-arginylglycyl-L-phenylalanyl-L-
     cysteinyl-L-arginyl-L-cysteinyl-L-isoleucyl-L-cysteinyl-L-threonyl- (9CI)
     (CA INDEX NAME)
OTHER NAMES:
CN   11: PN: WO0068265 FIGURE: 16 unclaimed sequence
CN   28: PN: WO02060468 SEQID: 28 unclaimed sequence
SQL  18

SEQ      1 GFCRCICTRG FCRCICTR
           ========== ========
HITS AT:   1-18

**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

L4   ANSWER 7 OF 7  REGISTRY  COPYRIGHT 2005 ACS on STN
RN   306966-04-1  REGISTRY
CN   Cyclo(L-arginyl-L-cysteinyl-L-isoleucyl-L-cysteinyl-L-threonyl-L-
     arginylglycyl-L-phenylalanyl-L-cysteinyl-L-arginyl-L-cysteinyl-L-isoleucyl-
     L-cysteinyl-L-threonyl-L-arginylglycyl-L-phenylalanyl-L-cysteinyl), cyclic
     (2→11),(4→9),(13→18)-tris(disulfide) (9CI)  (CA INDEX
     NAME)
OTHER NAMES:
CN   θ-Defensin RTD 3
CN   2: PN: US20040014669 TABLE: 1 claimed protein
SQL  18

SEQ      1 RCICTRGFCR CICTRGFC
           ========== ========
HITS AT:   1-15, 7-18


=> file medline biosis embase
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                   51.97      96.50

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -0.68      -4.33

FILE 'MEDLINE' ENTERED AT 10:12:16 ON 01 JUL 2005

FILE 'BIOSIS' ENTERED AT 10:12:16 ON 01 JUL 2005
Copyright (c) 2005 The Thomson Corporation

FILE 'EMBASE' ENTERED AT 10:12:16 ON 01 JUL 2005
COPYRIGHT (C) 2005 Elsevier Inc. All rights reserved.

=> s l1
L5            0 L1

=> d his

     (FILE 'HOME' ENTERED AT 10:03:42 ON 01 JUL 2005)
```

```
     FILE 'REGISTRY' ENTERED AT 10:04:34 ON 01 JUL 2005
L1             7 S GFCRCICTRGFCRCICTR | GVCRCLCRRGVCRCLCRR/SQSP

     FILE 'CAPLUS' ENTERED AT 10:05:34 ON 01 JUL 2005
L2             5 S L1

     FILE 'REGISTRY' ENTERED AT 10:06:41 ON 01 JUL 2005
L3             7 S (306966-04-1/BI OR 374088-87-6/BI OR 307334-75-4/BI OR 307334
L4             7 S L1 AND L3

     FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 10:12:16 ON 01 JUL 2005
L5             0 S L1

=> s l4
L6           0 L4

=> d his

     (FILE 'HOME' ENTERED AT 10:03:42 ON 01 JUL 2005)

     FILE 'REGISTRY' ENTERED AT 10:04:34 ON 01 JUL 2005
L1             7 S GFCRCICTRGFCRCICTR | GVCRCLCRRGVCRCLCRR/SQSP

     FILE 'CAPLUS' ENTERED AT 10:05:34 ON 01 JUL 2005
L2             5 S L1

     FILE 'REGISTRY' ENTERED AT 10:06:41 ON 01 JUL 2005
L3             7 S (306966-04-1/BI OR 374088-87-6/BI OR 307334-75-4/BI OR 307334
L4             7 S L1 AND L3

     FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 10:12:16 ON 01 JUL 2005
L5             0 S L1
L6             0 S L4

=>

---Logging off of STN---


=>
Executing the logoff script...


=> LOG Y

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                      ENTRY    SESSION
FULL ESTIMATED COST                                    3.39      99.89

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                      ENTRY    SESSION
CA SUBSCRIBER PRICE                                    0.00      -4.33

STN INTERNATIONAL LOGOFF AT 10:13:19 ON 01 JUL 2005
```